

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: COLD SPRING POND	Lake Area (ha): 11.78
Town: STODDARD	Maximum depth (m): 4.8
County: Cheshire	Mean depth (m): 3.0
River Basin: Connecticut	Volume (m ³): 358000
Latitude: 43°05'58" N	Relative depth: 1.2
Longitude: 72°09'05" W	Shore configuration: 1.32
Elevation (ft): 1637	Areal water load (m/yr): 3.92
Shore length (m): 1600	Flushing rate (yr ⁻¹): 1.30
Watershed area (ha): 76.8	P retention coeff.: 0.70
% watershed ponded: 0.0	Lake type: artificial

BIOLOGICAL:

14 January 2003

6 August 2002

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 50%	MALLOMONAS 60%
	#2	ASTERIONELLA 20%	(ALL ALGAE VERY SPARSE)
	#3	(ALL ALGAE SPARSE)	
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			1.45
DOM. ZOOPLANKTON (% TOTAL)	#1	CALANOID COPEPOD 46%	CALANOID COPEPOD 43%
	#2	ROTIFER SPP. 26%	KERATELLA 28%
	#3		NAUPLIUS LARVA 16%
ROTIFERS/LITER		70	51
MICROCRUSTACEA/LITER		70	126
ZOOPLANKTON ABUNDANCE (#/L)		144	184
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			4.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		6.7	6.8
BACTERIA (E. coli, #/100 ml)	#1		7
	#2		1
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: COLD SPRING POND

Town: STODDARD

	14 January 2003		6 August 2002		
DEPTH (m)	1.5	3.0	1.5		3.0
pH (units)	5.8	5.9	6.3		6.2
A.N.C. (Alkalinity)	2.4	2.6	1.9		1.8
NITRATE NITROGEN	0.06	0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN			< 0.25		< 0.25
TOTAL PHOSPHORUS	0.006	<0.005	0.009		0.007
CONDUCTIVITY (μ mhos/cm)	71.3	81.2	76.8		76.7
APPARENT COLOR (cpu)	11	11	8		9
MAGNESIUM			0.55		
CALCIUM			1.3		
SODIUM			10.3		
POTASSIUM			0.62		
CHLORIDE	14	17	16		16
SULFATE	5	4	4		4
TN : TP					
CALCITE SATURATION INDEX			4.6		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 2002

D.O. S.D. PLANT CHL TOTAL CLASS

**	1	3	0	4	Oligo.
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COMMENTS:

1. aka Abbott Forest Pond.
2. No motors allowed.
3. Previously surveyed in 1982. No change in trophic class and little change in trophic data between the two dates. Rooted plants appeared somewhat more common in 2002.
4. The pond was not re-sounded in 2002; enclosed bathymetric map is from the 1982 survey.
5. Pond's outlet has been sampled twice a year (spring and fall overturn) since 1983 as part of a long-term acid rain trend program. ANC and pH have remained relatively stable throughout this 20 year period.
6. This is a clear water oligotrophic pond. Moderately elevated sodium, chloride and conductivity values suggest some road salt runoff.

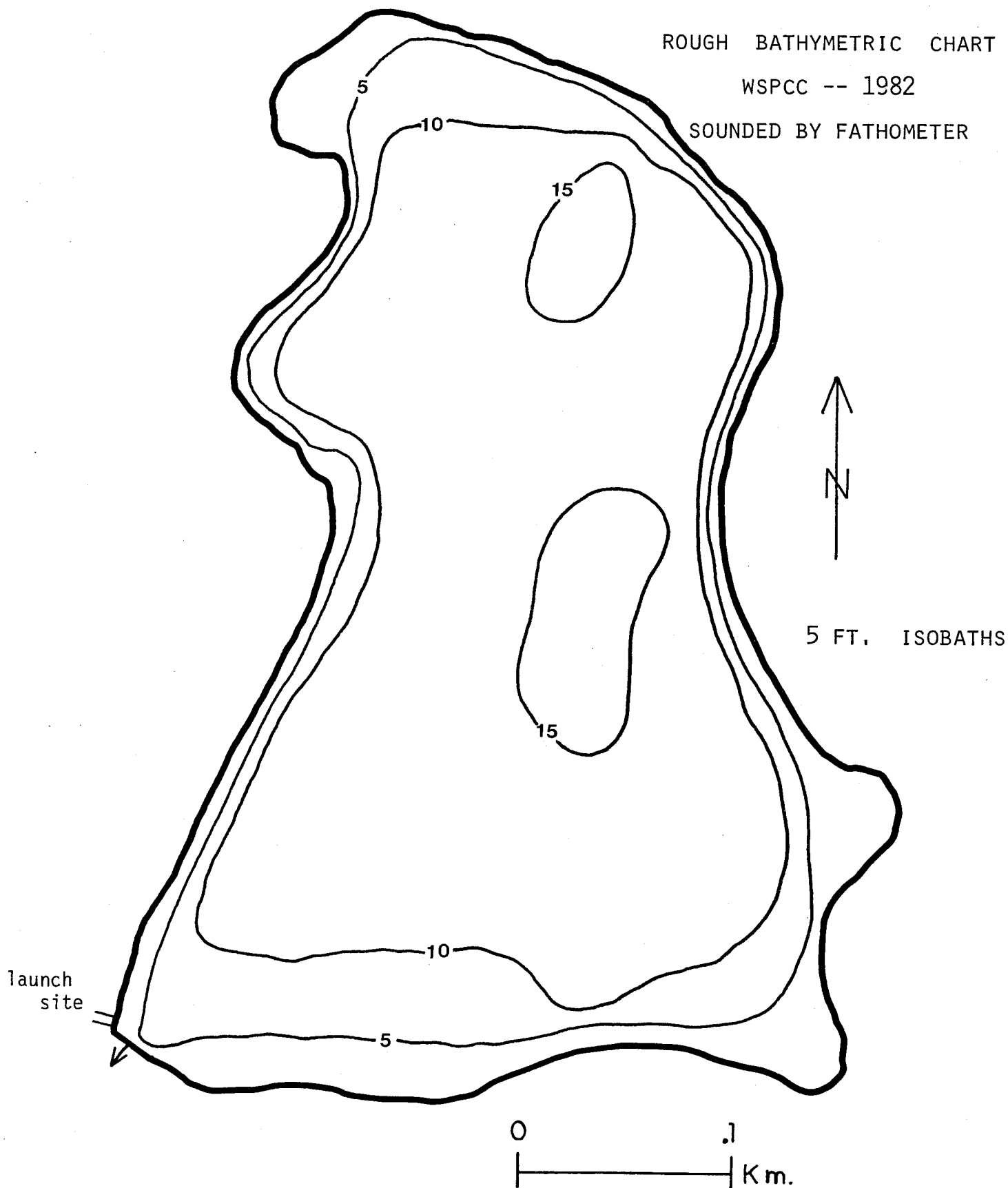
COLD SPRING POND

STODDARD

ROUGH BATHYMETRIC CHART

WSPCC -- 1982

SOUNDED BY FATHOMETER



FIELD DATA SHEET

LAKE: COLD SPRING POND TOWN: STODDARD
DATE: 08/06/2002 WEATHER: Breezy & cool

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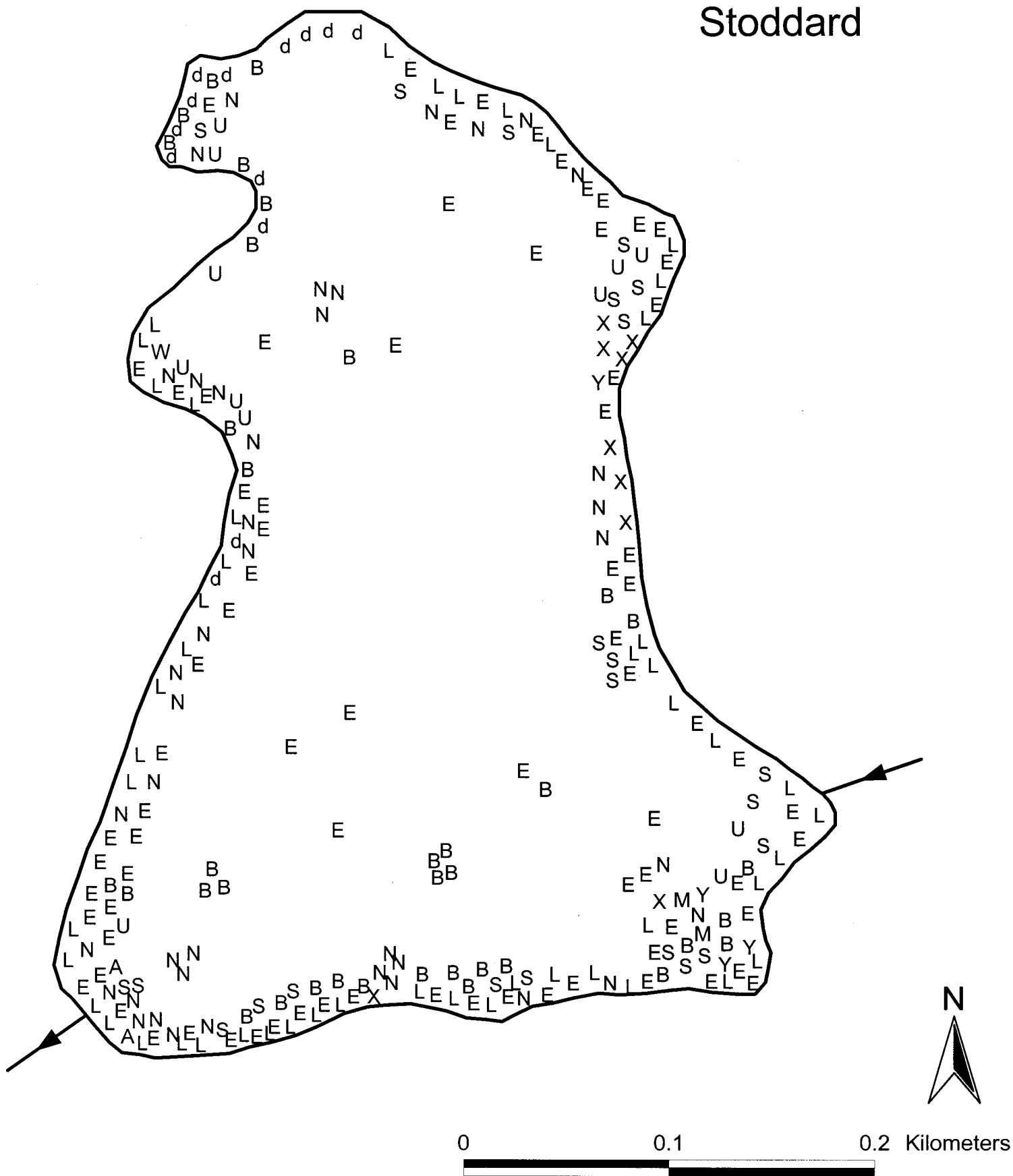
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SECCHI DISK (m):      4.1 VOB          COMMENTS:
BOTTOM DEPTH (m):     4.1
TIME: 1100

*Dissolved oxygen values are in mg/L
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*Dissolved oxygen values are in mg/L

Cold Spring Pond

Stoddard



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